

WHAT IS CLAIMED IS:

- 1 1. A voltage generator arrangement, comprising:
 - 2 a first connection for a supply potential;
 - 3 a second connection for a reference ground potential; and
 - 4 a first output connection for an output potential to be tapped off;
 - 5 a first reference ground potential line, the first reference ground potential line being
 - 6 connected to the second connection;
 - 7 a second reference ground potential line, the second reference ground potential line
 - 8 being connected to the second connection;
 - 9 a bandgap reference circuit, the bandgap reference circuit being connected to the first
 - 10 reference ground potential line having a second output connection;
 - 11 a voltage generator, the voltage generator being connected between the first
 - 12 connection and the second reference ground potential line, the second reference ground line
 - 13 being connected on the output side to the first output connection to be tapped off, on the input
 - 14 side, having a control input for controlling the magnitude of the output potential; and
 - 15 a correction circuit, the correction circuit being connected to the first and second
 - 16 reference ground potential lines, being coupled on the input side to the bandgap reference
 - 17 circuit, and having a third output connection, the third output connection being coupled to the
 - 18 input of the voltage generator and carrying a control signal, the control signal being
 - 19 dependent upon the potential difference between the first and second reference ground
 - 20 potential lines.
- 1 2. The voltage generator arrangement as claimed in claim 1, further comprising:

2 an impedance converter circuit, the impedance converter circuit being connected to
3 the first reference ground potential line and having an input/output signal path connected
4 between the output of the bandgap reference circuit and an input of the correction circuit.

1 3. The voltage generator arrangement as claimed in claim 1, wherein the
2 correction circuit has a linearly superimposing circuit to linearly superimpose a signal which
3 is dependent on the potential difference between the potentials of the first and second
4 reference ground potential lines on a signal which is produced by the bandgap reference
5 circuit.

1 4. The voltage generator arrangement as claimed in claim 3, wherein the bandgap
2 reference circuit, the impedance converter circuit and the correction circuit are connected on
3 the supply voltage side to the first connection for the supply potential.

1 5. The voltage generator arrangement as claimed in claim 1, wherein the second
2 reference ground potential line is a longitudinally extending line which is connected at a first
3 end to the connection for the external supply of the reference ground potential, and which is
4 connected at a second end to the voltage generator, and
5 wherein the correction circuit contacts the second reference ground potential line
6 closer to the second end than to the first end.

1 6. The voltage generator arrangement as claimed in claim 5, wherein the
2 correction circuit contacts the second reference ground potential line proximate to a point at
3 which the voltage generator is connected to the second reference ground potential line.

1 7. The voltage generator arrangement as claimed in claim 1, wherein the
2 correction circuit has a first operational amplifier, which is connected as an inverting adder
3 and which is coupled on the input side to the bandgap reference circuit and to the second
4 reference ground potential line.

1 8. The voltage generator arrangement as claimed in claim 7, wherein the
2 correction circuit has a second operational amplifier, which is connected as an inverting
3 amplifier and is coupled on the input side to an output of the first operational amplifier.

1 9. The voltage generator arrangement as claimed in claim 1, wherein the voltage
2 generator includes a comparator, which is connected on the output side to the control input of
3 a load transistor, wherein the load transistor is connected between the connection for the
4 supply potential and the output connection for the output potential to be tapped off, and
5 wherein a voltage divider is provided, is connected between this output connection and the
6 second reference ground potential line, and has a tap which is fed back to an input of the
7 comparator.

1 10. The voltage generator arrangement as claimed in claim 2, wherein the
2 correction circuit has a linearly superimposing circuit to linearly superimpose a signal which
3 is dependent on the potential difference between the potentials of the first and second
4 reference ground potential lines on a signal which is produced by the bandgap reference
5 circuit.

1 11. The voltage generator arrangement as claimed in claim 10, wherein the
2 bandgap reference circuit, the impedance converter circuit and the correction circuit are
3 connected on the supply voltage side to the first connection for the supply potential.